

CLAIMS

What is claimed is:

- 5 1. A system for communication, comprising:
a set of one or more rich media environments
having a corresponding arrangement of sensing and
rendering components;
interest thread detector that uses the sensing
10 and rendering components to detect multiple
communication interactions among a set of individuals
and that maintains an interest thread for each
communication interaction;
communication provider that for each interest
15 thread captures a set of media data from the sensing
components and that combines the captured media data
in response to the activities of the individuals and
that communicates the combined media data to the
rendering components.
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2. The system of claim 1, wherein the communication
provider selects a subset of the sensing and
rendering components for use for each interest
thread.
- 25 3. The system of claim 1, wherein the activities
include speech levels of the individuals.
4. The system of claim 1, wherein the activities
30 include gestures by the individuals.
5. The system of claim 1, wherein the activities
include movements by the individuals.

6. The system of claim 1, wherein the activities include locations the individuals.
- 5 7. The system of claim 1, wherein the communication provider refines the media data obtained from the sensor components in response to the activities.
- 10 8. The system of claim 1, wherein the communication provider stores the combined media data to provide a history of the corresponding communication interaction.
- 15 9. The system of claim 1, wherein one or more of the communication interactions pertain to an artifact in one of the rich media environments.
- 20 10. The system of claim 9, wherein the artifact changes over time.
11. The system of claim 9, wherein the artifact is a shared virtual writing surface.
- 25 12. The system of claim 10, wherein a change to the artifact is made by one of the individuals.
13. The system of claim 10, wherein the communication provider records a history of the artifact over time.
- 30 14. The system of claim 1, wherein the interest thread detector detects one or more activities in the rich media environments and creates an interest area

for each detected activity.

15. The system of claim 14, wherein the interest
thread detector associates the interest areas with
5 the interest threads.

16. The system of claim 1, wherein one or more of
the communication interactions is among two or more
of the individuals in one of the rich media
10 environments.

17. The system of claim 1, wherein one or more of
the communication interactions is among one or more
of the individuals in two or more of the rich media
15 environments.

18. The system of claim 1, wherein the interest
thread detector detects formation of a particular
communication interaction by detecting a movement of
20 one of the individuals.

19. The system of claim 18, wherein the movement
pertains to one of the rendering devices.

25 20. The system of claim 18, wherein the movement
pertains to one of the other individuals.

21. The system of claim 1, wherein one or more of
individuals is in a remote location and in possession
30 of a remote sensing and rendering component.

22. A method for communication using a set of rich
media environments each having a corresponding

arrangement of sensing and rendering components,
comprising the steps of:

- detecting multiple communication interactions
among a set of individuals;
- 5 maintaining an interest thread for each detected
communication interaction;
- capturing a set of media data from the sensing
components;
- combining the captured media data in response to
- 10 the activities of the individuals;
- communicating the combined media data to the
rendering components.

23. The method of claim 22, further comprising the
15 step of selecting a subset of the sensing and
rendering components for use for each interest
thread.

24. The method of claim 44, wherein the step of
20 combining the captured media data in response to the
activities of the individuals includes the step of
detecting speech levels of the individuals.

25. The method of claim 22, wherein the step of
25 combining the captured media data in response to the
activities of the individuals includes the step of
detecting gestures by the individuals.

26. The method of claim 22, wherein the step of
30 combining the captured media data in response to the
activities of the individuals includes the step of
detecting movements by the individuals.

27. The method of claim 22, wherein the step of combining the captured media data in response to the activities of the individuals includes the step of detecting locations of the individuals.

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28. The method of claim 22, further comprising the step of refining the media data obtained from the sensor components in response to the activities.

10 29. The method of claim 22, further comprising the step of storing the combined media data in a history of the corresponding communication interaction.

15 30. The method of claim 22, further comprising the step of monitoring an artifact over time.

31. The method of claim 30, further comprising the step of recording a history of the artifact over time.

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32. The method of claim 22, further comprising the steps of detecting one or more activities in the rich media environments and creating an interest area for each detected activity.

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33. The method of claim 32, further comprising the step of associating the interest areas with the interest threads.

30 34. A computer-readable storage media that contains a set of code that when executed provides communication among a set of rich media environments each having a corresponding arrangement of sensing

and rendering components by performing the steps of:
detecting multiple communication interactions
among a set of individuals;
maintaining an interest thread for each detected
5 communication interaction;
capturing a set of media data from the sensing
components;
combining the captured media data in response to
the activities of the individuals;
10 communicating the combined media data to the
rendering components.

35. The computer-readable storage media of claim 34,
further comprising the step of selecting a subset of
15 the sensing and rendering components for use for each
interest thread.

36. The computer-readable storage media of claim 34,
wherein the step of combining the captured media data
20 in response to the activities of the individuals
includes the step of detecting speech levels of the
individuals.

37. The computer-readable storage media of claim 34,
25 wherein the step of combining the captured media data
in response to the activities of the individuals
includes the step of detecting gestures by the
individuals.

30 38. The computer-readable storage media of claim 34,
wherein the step of combining the captured media data
in response to the activities of the individuals
includes the step of detecting movements by the

individuals.

39. The computer-readable storage media of claim 34,
wherein the step of combining the captured media data
5 in response to the activities of the individuals
includes the step of detecting locations of the
individuals.

40. The computer-readable storage media of claim 34,
10 further comprising the step of refining the media
data obtained from the sensor components in response
to the activities.

41. The computer-readable storage media of claim 34,
15 further comprising the step of storing the combined
media data in a history of the corresponding
communication interaction.

42. The computer-readable storage media of claim 34,
20 further comprising the step of monitoring an artifact
over time.

43. The computer-readable storage media of claim 42,
further comprising the step of recording a history of
25 the artifact over time.

44. The computer-readable storage media of claim 34,
further comprising the steps of detecting one or more
activities in the rich media environments and
30 creating an interest area for each detected activity.

45. The computer-readable storage media of claim 44,
further comprising the step of associating the

interest areas with the interest threads.